Challenges and Strategies for the Alaska Salmon Industry

by

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Abstract

There is a lot of concern these days in the Alaska salmon industry. The value to fishermen of the 2001 Alaska salmon harvest was less than half the average value during the early 1990s. In this paper, I discuss the challenges facing the Alaska salmon industry and my personal opinions on strategies for dealing with them.

I personally believe that we need radical changes in the management of Alaska salmon fisheries for the Alaska salmon industry to have a dynamic and profitable future. There are many reasons for which reasonable people may disagree with me. But we need to start talking to each other and listening to each other and exploring new ideas.

Alaska's salmon industry is facing many different challenges. The problem is not just competition from farmed salmon. Other challenges include variable and uncertain salmon runs, overproduction for traditional canned salmon markets, changes in consumer demand, and the current world economic slowdown—to name just a few. These challenges are not going to go away and there aren't any quick or easy fixes.

If we don't make changes, we face a bleak future in many of our salmon fisheries. Prices will continue to trend downwards. Fewer processors will operate, and those that do operate will increasingly limit what they buy and the fleets that they buy from. More and more fishermen will lose markets. It will become increasingly difficult to find crew. More and more permits will not be fished. Permit values will fall. Boat values will fall. More and more fishermen will go bankrupt and default on commercial fishing loans. The State of Alaska and local governments will lose tax revenues. Salmon hatcheries and ASMI will lose funding. Less money will circulate in fishing communities. We are already seeing these effects in many salmon fisheries.

As we search for strategies, we need to remember that we face different challenges in different fisheries. Where the problem is not enough fish, strategies to raise prices won't solve the problem. Where the problem is low prices, more fish won't solve the problem. If we only look for strategies that will help everyone, we won't get very far.

We need to get smarter. We have a lot to learn about what challenges we face and what we can do about them. We need to learn about our salmon resources. We need to learn about our markets. We need to learn about our competition. We need to stop making simplistic assumptions. We need to look beyond Alaska.

It makes sense to do whatever we can to get more money for our fish. We need more marketing. We need better quality. Maybe marketing coops could help raise canned salmon prices. But for most of our salmon fisheries, these strategies won't be enough by themselves. They will cost money. They won't raise prices quickly or dramatically. And raising prices won't solve the problems that we face (or may face in the future) that result from not enough fish.

The basic problem we face in the Alaska salmon industry is that our management system is not designed to create a competitive and cost-efficient industry. Instead it is designed to achieve social and political goals of spreading the wealth of the salmon fishery—of maximizing jobs and incomes for Alaskans. For a period of time, the system worked well. The wealth of the salmon industry was spread among thousands of different individuals. But it isn't working well any more. If an industry isn't profitable, there isn't any wealth to spread.

The reality is that we can't achieve social and political goals from the Alaska salmon industry unless the industry is economically viable. We have to refocus our management on creating conditions for a dynamic, competitive, efficient and profitable industry which can compete successfully in the face of changing resource conditions and changing world markets. We need to create a system that allows for continuous innovation and adaptation of new technologies to lower costs and improve quality.

We could do this by establishing "rights-based" management of for Alaska salmon. Groups or individuals would have rights to designated allocations of the total salmon harvest. Managers would focus on achieving escapement goals and allocations. Rights-holders could catch their allocations in any way that they chose to do so—including pooling their fishing efforts and using new types of gear, including fish traps.

The basic logic for rights-based management is to protect the resource by restricting how many fish are caught—but to do so in a way that allows fishermen, rather than the government, to decide how to catch the fish. The logic is to let fishermen use their imagination and ingenuity to figure out ways to cut costs, raise quality, and innovate and change in response to changing resource and market conditions. That's the basic logic of a market-driven economy. That's the logic that has driven most of the rest of our American economy—and made it the strongest economy in the world.

If fishermen have allocations and know how many fish they can catch, they won't have to race each other. That means that we won't need rules any more about how they can catch fish—rules which are necessary under the present system to make the race for fish fair for everyone.

If fishermen don't have to race each other for fish and can catch fish any way they wish to, they can continuously change and adapt to changing run sizes and economic conditions. They can innovate to take advantage of new technologies. They can keep searching for ways to catch fish at lower cost. They can keep searching for ways to improve quality.

Experience—from Alaska and elsewhere—shows that it is important to be very careful in establishing rights-based management systems. Once a rights-based system is in place, it's hard to go back—to take away rights. So it's important to think carefully about the details of any new system. Four of the most important kinds of issues in creating rights-based management for Alaska salmon are (a) how to make rights-based management consistent with the Alaska constitution; (b) how to simultaneously manage salmon

fisheries for escapement and allocation; (c) what kind of rights should be created and who should receive them; and (d) what provisions should be included to address potential adverse "side-effects" of rights-based management.

These issues are complex. Establishing rights-based management of Alaska salmon would take a lot of work and would take time. And so would any other fundamental changes that would make a real difference.

That doesn't mean we can't or shouldn't make fundamental changes. It means we need to get started thinking about them. We have a lot to think about. No new system will be perfect or will please everyone. What's important is whether it will be better than what will happen if we don't change. The sooner we start thinking about fundamental changes, the sooner we'll be in a position to make changes—and the less likely that we will make mistakes by acting in a hurry after things get even worse.

It's time for every Board of Fisheries member, every legislator, and the governor to start exercising leadership to address the challenges facing the Alaska salmon industry. Leadership means learning about the issues, listening to Alaskans about the issues, helping devise solutions and finding compromises, and taking action.

Not acting has consequences. For those who don't support the proposals in this paper -- or other proposals for making Alaska salmon fisheries more viable--the question should be what are they proposing as an alternative? And what are they doing to make it happen?

Alaska salmon fisheries can be profitable if we're willing to make real changes, including changing management to allow fishermen to cut unnecessary costs and improve quality. The Alaska salmon industry can survive--and prosper--if we're willing to let it succeed.

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Introduction

There is a lot of concern these days in the Alaska salmon industry. The value to fishermen of the 2001 Alaska salmon harvest was about $220 million. After adjusting for inflation, that's less than half the average value during the first half of the 1990s.

Alaska salmon processors' earnings have also dropped. In 2000, the total processing margin, or the difference between wholesale value and ex-vessel price, was three-quarters of the average for the first half of the 1990s (wholesale value data for 2001 aren't available yet).

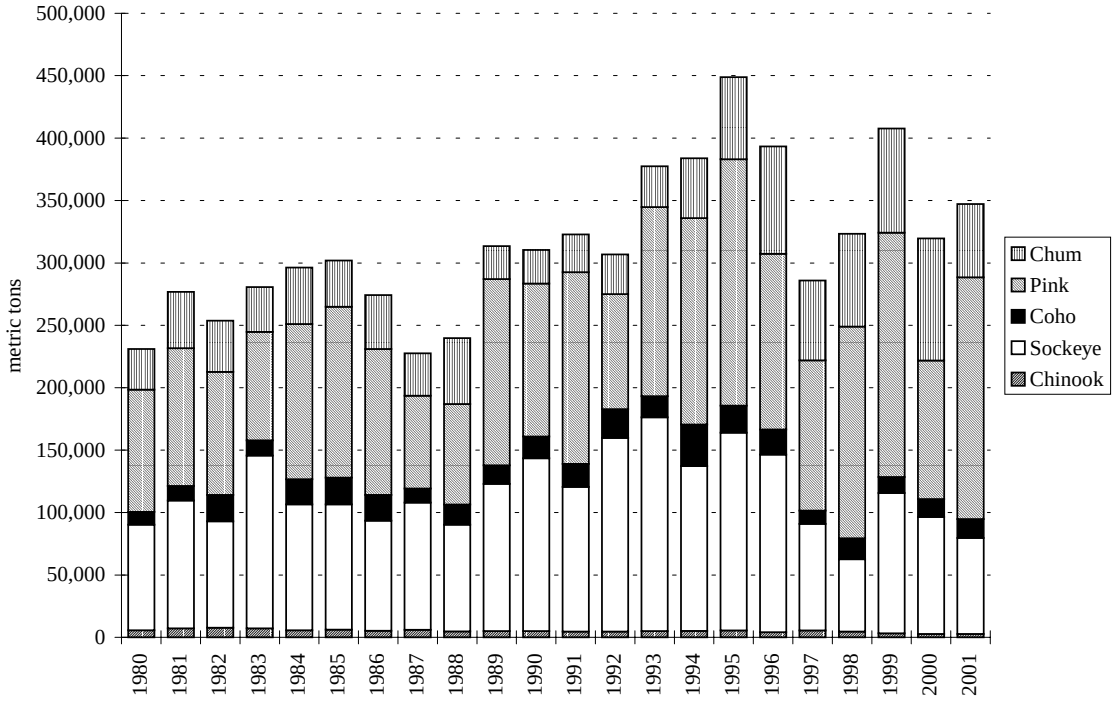
Wholesale Value, Ex-Vessel Value, & Processing Margin of Alaska Salmon After Adjusting for Inflation

Note: "Processing Margin" = First Wholesale Value - Ex Vessel Value

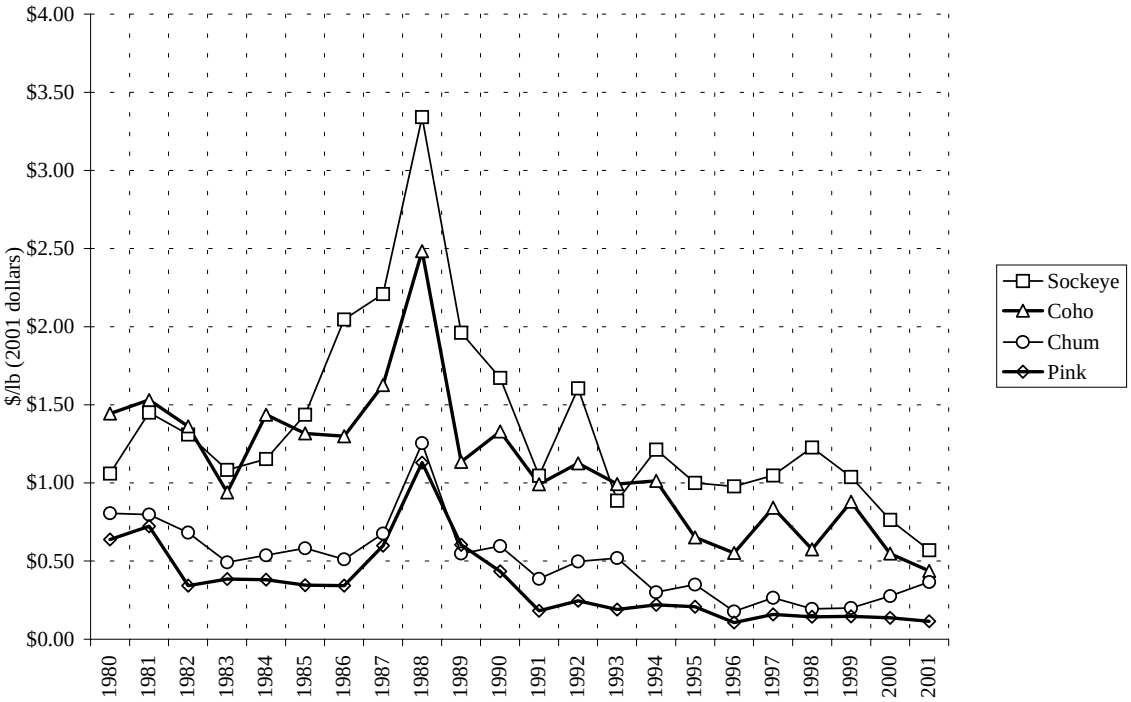
There are two basic causes of the drop in value. First, wholesale and ex-vessel prices for Alaska salmon have fallen. Second, harvests have fallen for some species and areas. The drop in value isn't the same in all Alaska salmon fisheries. Some fisheries are doing better than the statewide trend reflected in the graph. But others fisheries are doing worse.

Because of the drop in value, salmon fishing and processing is a lot less profitable than it used to be. This is reflected in a drastic decline in the value of limited entry permits in many areas, and a decline in the number of processors operating in many areas.

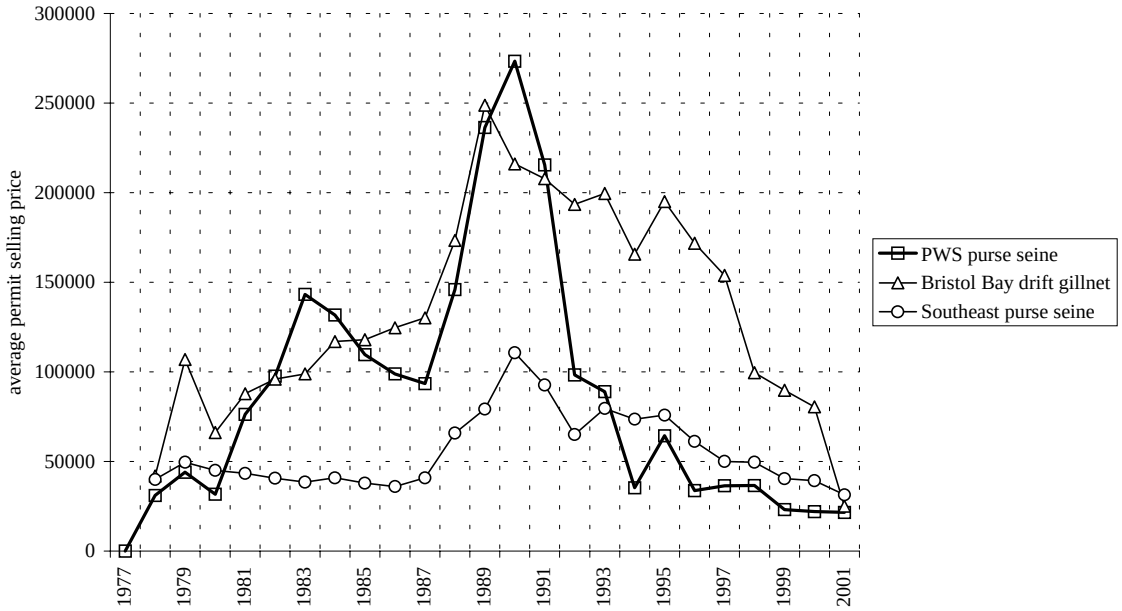
Alaska Salmon Harvests



Statewide Average Ex-Vessel Salmon Prices After Adjusting for Inflation



Average Permit Prices in Selected Alaska Salmon Fisheries



Source: Commercial Fisheries Entry Commission, Salmon Fishery Basic Information Tables. *Estimated value, November 2001.

What can the Alaska salmon industry do? In this paper, I discuss the challenges facing the Alaska salmon industry and my personal opinions on strategies for dealing with them. Why am I stating my personal opinions? Because I've been studying the Alaska salmon industry for a long time, and many people have asked me what I think we should do. So in this paper I've tried to summarize what I think we should do.

I personally believe that we need radical changes in the management of Alaska salmon fisheries for the Alaska salmon industry to have a dynamic and profitable future. Many people will disagree. They may have different opinions about the causes of the problems facing the salmon industry. They may feel that the changes I suggest are impractical and wouldn't work. They may feel that the cures I suggest are worse than the disease. They may have different opinions about what kind of salmon industry would be best for Alaska.

There are many reasons for which reasonable people may disagree with me. But we need to start talking to each other and listening to each other and exploring new ideas. These are difficult times for the Alaska salmon industry. There aren't any easy answers. I welcome comments on the ideas in this paper. I have a lot to learn. I expect that I will revise this paper as I learn more and my perspective evolves.

I've tried to keep this paper short so that people will read it. I've tried to focus on the most important points. Inevitably that means simplifying. Much more could be said about everything I discuss in this paper.

Understanding the Challenges

The starting point in dealing with any problem is understanding what the problem is. The Alaska salmon industry isn't facing just one problem. It is facing many different challenges.

The following table summarizes some of the main challenges facing the Alaska salmon industry. The relative importance of these challenges differs for different areas and species. But most areas and most species face at least several of these challenges.

Challenges Faced by the Alaska Salmon Industry

Harvests	Variable and uncertain salmon runs	In all Alaska salmon fisheries, harvests vary widely from year to year and are difficult to predict. In some areas of Alaska salmon returns have declined significantly. The causes of declining returns are uncertain and there is little that managers can do about them. "Regime shifts" in ocean conditions could potentially affect harvests of all species and in all areas.
	Competition from other user groups	Sports and subsistence users are seeking increased shares of salmon returns and allocation priority in low-run years. The political power of these groups is growing.
	Environmental restrictions	Environmental regulations such as the Endangered Species Act could lead to restrictions on harvests of healthy salmon runs to protect weaker salmon runs as well as non-salmon species such as Steller Sea Lions.
Markets	Competition from farmed salmon	Rapidly growing farmed salmon production is depressing prices and eroding demand for wild salmon.
	Competition from Russian salmon	Russian wild salmon—especially Russian pink salmon and salmon roe products—are competing more and more directly with Alaska salmon. Some of this salmon is processed in countries such as China and Thailand with very low wage costs.
	Overproduction for traditional markets	In some years, large Alaska production volumes glut markets and depress prices for some products, in particular canned salmon.
	Changes in food distribution system	The retail and food-service industries in industrialized countries are becoming increasingly consolidated, dominated by very large companies operating hundreds of retail stores or restaurants. These companies are trying to cut costs by buying standardized products in large volumes from global low-cost producers—factors which tend to work against wild salmon.
	Changing consumer demand	Consumer demands are changing as incomes rise, lifestyles change, demographics change, and the range of products available to consumers change. These changes tends to reduce demand for traditional products such as canned salmon.
	Strong U.S. dollar	The U.S. dollar has strengthened in recent years relative to most other currencies. This lowers the purchasing power of buyers in our export markets, and makes Alaska salmon more expensive relative to competing salmon from other countries.
	World economic slowdown	Economic growth is slowing in most of the world. The economic situation has further deteriorated since September 11
Costs	Higher fuel and labor costs	Costs are increasing for both fishermen and processors. In particular, fuel and labor costs have risen in recent years.

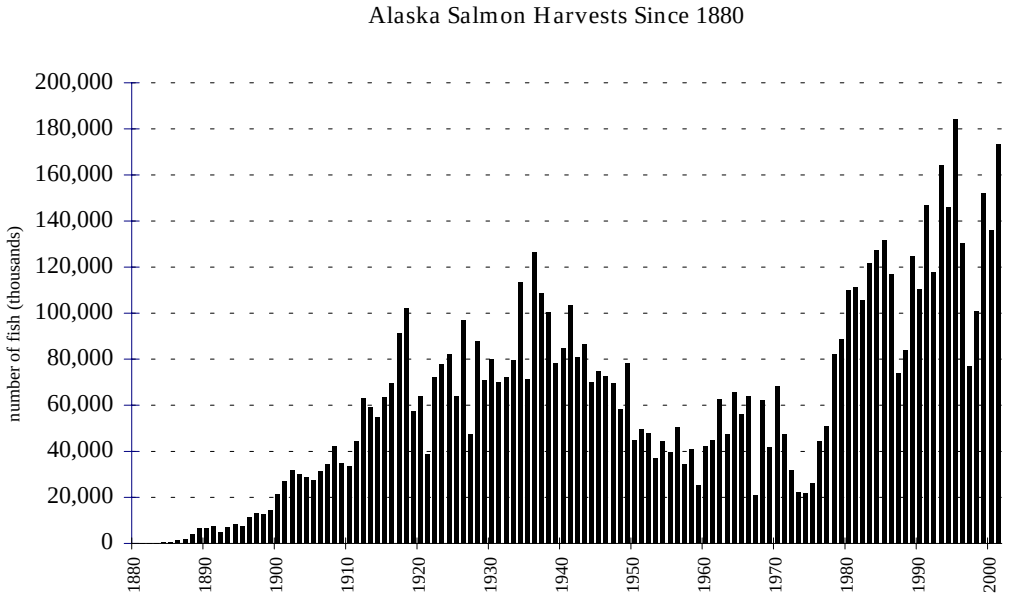
Let's review some of these challenges and what they imply for thinking about strategies for the salmon industry.

Variable and Uncertain Salmon Runs

Ones of the biggest challenges facing the Alaska salmon industry is the variable and uncertain nature of our salmon runs. Think about it. The entire Alaska salmon industry

is based on a resource that can vary hugely from year to year for reasons we don't understand and in ways that we can't predict. And the farther we look into the future, the more it can vary and the less we can predict how it might vary.

Yes, we have the best-managed salmon fisheries in the world. Yes, our managers and our fishermen are committed to sustainable management of our fisheries. But they can't stabilize our salmon runs from year to year. Even more importantly, they can't do anything about regime shifts in ocean conditions every few decades that have been accompanied in the past by dramatic changes in Alaska salmon returns. Potentially, all Alaska salmon fisheries could be affected by future regime shifts. No matter how carefully we manage our fisheries, we can't guarantee that ocean survival rates will stay the same.



The variability and uncertainty of our salmon harvests—both short-term and long-term--causes us two major kinds of problems. First, it makes the salmon business risky for both fishermen and processors. I've heard a lot of criticism of salmon processors over the years for not making investments in new products or new markets, but it doesn't really surprise me. There's a lot of risk to making big investments in processing and marketing fish that might not show up--and a lot of processors have found that out the hard way.

A second problem with variability and uncertainty of our salmon runs is that it causes us all kinds of problems in processing and marketing. It's hard to process salmon efficiently when one year you don't have enough fish and the next year you have more than you can handle. And it's hard to develop and keep new markets when one year you can't meet your preseason commitments and the next year the market is flooded so that anyone who tries to make a deal with you risks being undersold by a competitor.

We should look for strategies which can help us adjust to both short-run and long-run changes in future harvests. Common sense dictates that we should not expect to use the same number of boats, gear and fishermen in a low-run year as a high-run year—any more than we should expect to use the same number of processing workers. We should manage our industry in a way that we can adapt to much lower returns, if or when they happen.

Competition from Other User Groups

In some areas, the Alaska salmon industry faces significant political challenges from sport fishermen and other user groups seeking a greater share of the total harvest. Defending against these political challenges represents a significant cost for both harvesters and processors, and adds to the economic risks faced by the industry. These political challenges aren't going to go away. They will probably increase in the future as the population of Alaska grows and the tourism industry grows.

Unfortunately the political strength of the commercial industry in these allocation disputes with other user groups depends in part on its economic health. The less profitable the commercial industry, the stronger the arguments of other groups sound as to why they should receive a larger share of the harvest.

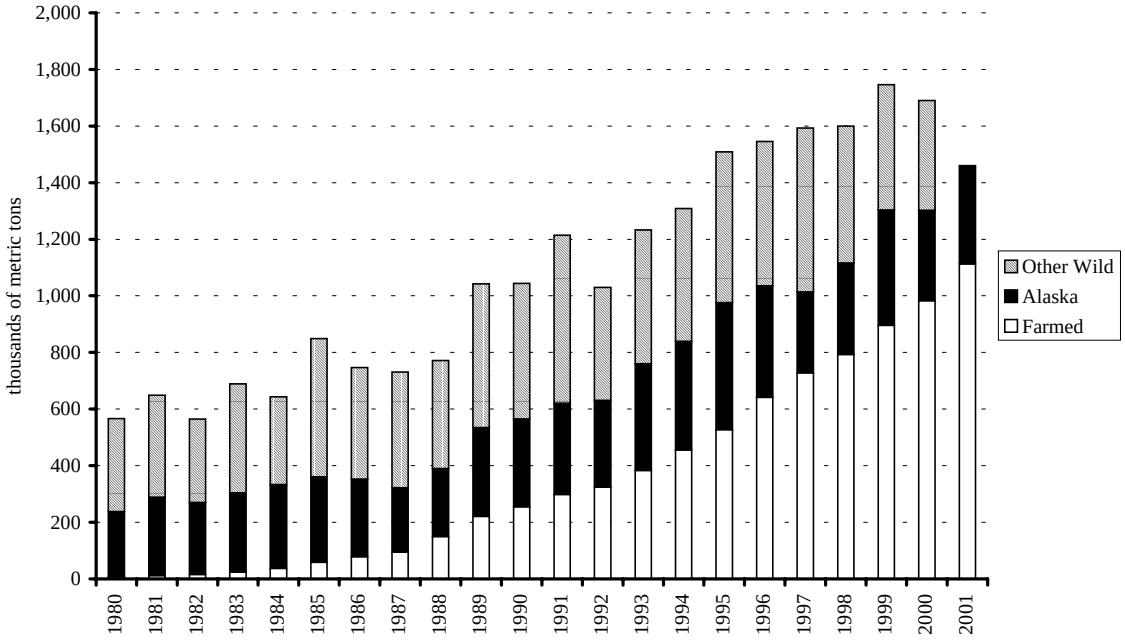
Competition from Farmed Salmon

Alaska salmon is facing severe and worsening competition from farmed salmon and trout. By now, the basic facts are becoming depressingly familiar. Last year farmed salmon alone (not including trout) accounted for 58% of world salmon production. This year, salmon farmers will produce more than three times as much salmon as Alaska. Norway alone produced 24% more salmon than Alaska. Chile produced 92% as much salmon as Alaska.

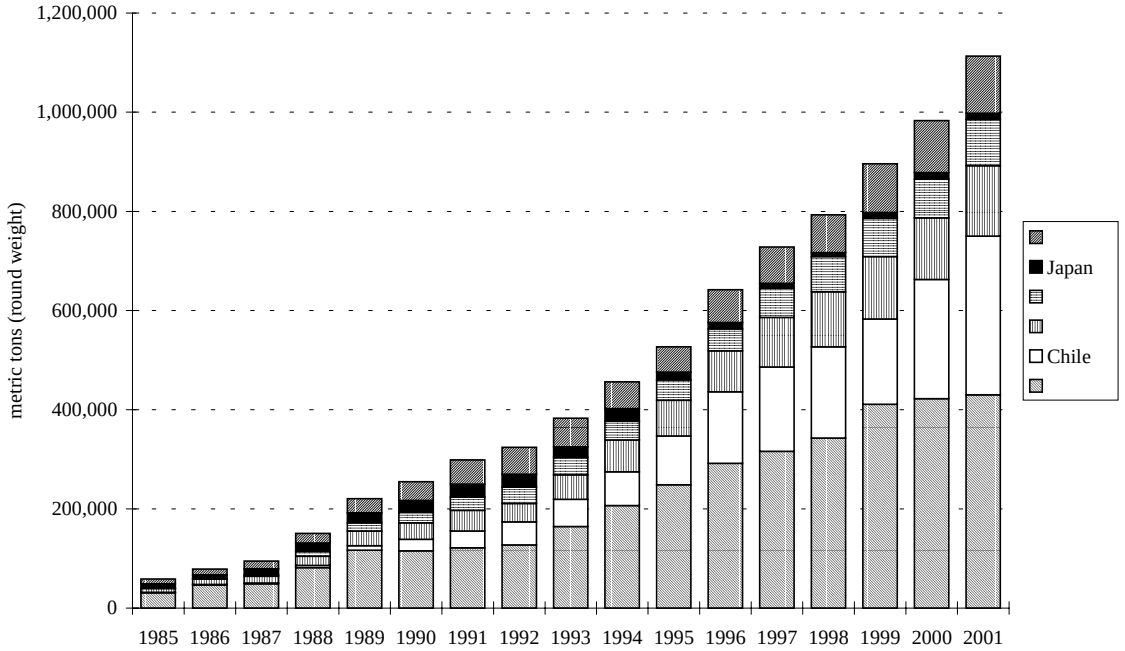
As farmed salmon production grows, Alaska's share of markets in Japan and the United States has eroded steadily and prices have fallen. This year the situation was exacerbated by very rapid expansion in Chilean production, which glutted markets and led to record low prices in U.S. and Japanese markets for fresh and frozen salmon. This has led to a market crisis not only for Alaska salmon, but for salmon farmers as well, who have been forced to sell salmon for well below their costs of production.

But because farmers are already growing the fish they will harvest over the next several years, it may take several years for farmed production to fall (or for growth in production to slow) enough for prices to come back up to levels at which salmon farming is profitable again. And the prices at which they *can* make money are still well below levels needed to bring wild salmon prices back to where they used to be.

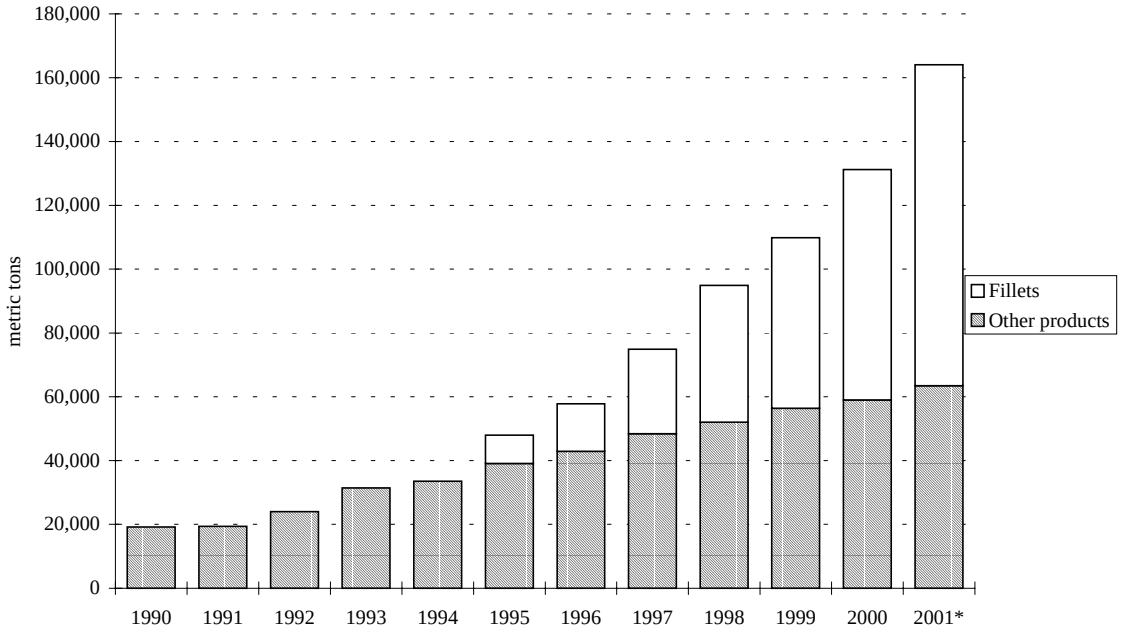
World Salmon Supply: Wild and Farmed



World Supply of Farmed Salmon, by Country



U.S. Imports of Farmed Atlantic Salmon

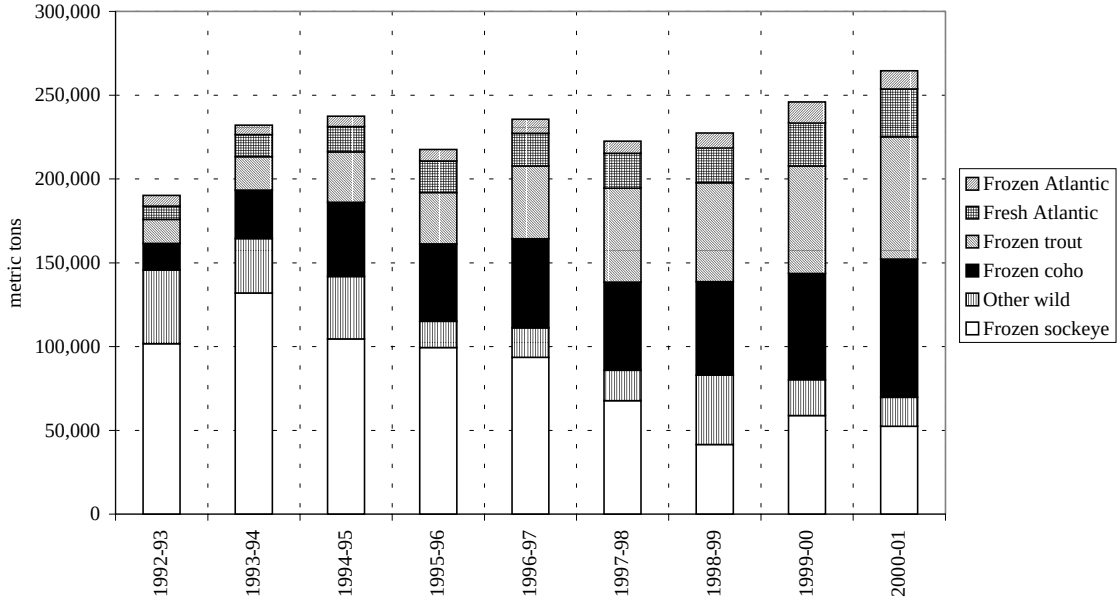


*2001 data are estimates extrapolated from imports through August 2001. Imports through August 2001 were 64,395 metric tons of fillets and 42,131 metric tons of other products, for a total of 106,526 metric tons.

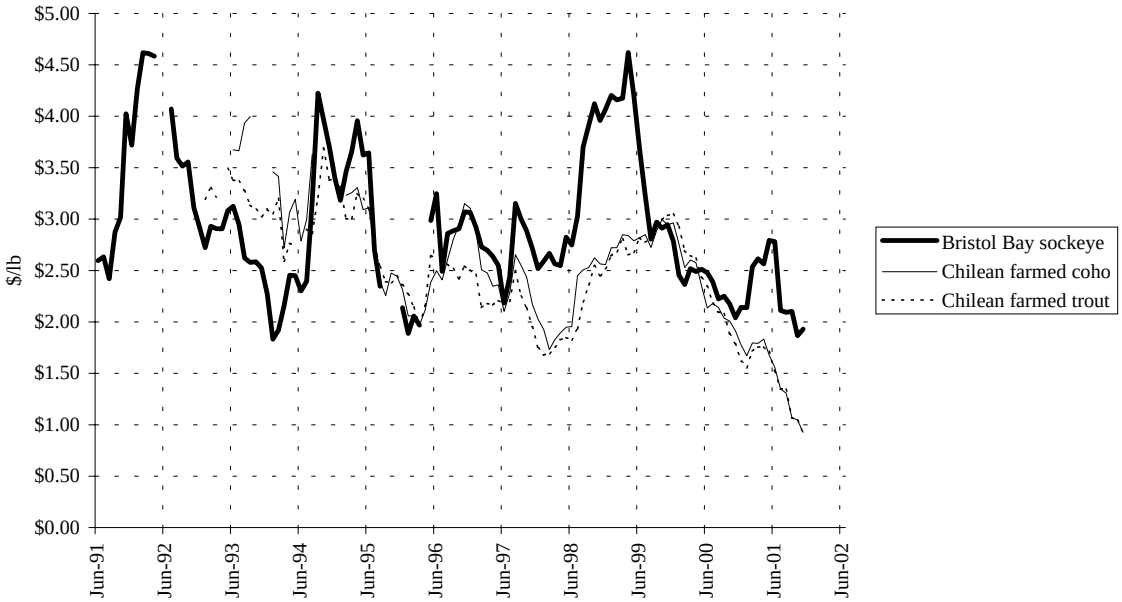
U.S. Wholesale Price of Fresh Atlantic Salmon (FOB Seattle, West Coast Atlantic)

Source: Urner Barry Publications, Inc., Seafood Price Current. Price is low list price, FOB Seattle, 6-8 lb fish.

Japanese Salmon Imports, May-April



Japanese Wholesale Prices in $/lb



Sources: Bill Atkinson's News Report (through 1/97); Fisheries Information Service (since 2/97). Prices are "low" prices for #1 4-6 lb fish.

Farmed salmon isn't going away. Even though factors such as low prices, disease, storms, and political opposition will cause production to fall in some countries, total world farmed salmon production will almost certainly keep growing, driven by declining production costs. Keep in mind that the farmed salmon industry is still very young in comparison to the thousands of years over which experience has accumulated in meat and poultry farming. As salmon farmers gain more experience they will to continue to find ways to reduce their costs, mainly through increased feed conversion efficiency (partly by the breeding of faster-growing fish) and increased efficiency in fish processing and distribution.

Prices of fish meal and fish oil, which are major ingredients in salmon feed, may increase as farmers' demand for feed increase. However, this won't necessarily happen very soon or raise costs very much, partly because fish meal can be diverted from other agricultural uses and partly because farmers will develop vegetable-based substitutes for fish meal and oil.

As farmed salmon production keeps growing, average prices for farmed salmon will continue to trend downwards. Even though prices will probably recover from this year's very low levels, the long-term trend will still be downward as costs of production decline.

There will continue to be periodic price cycles for farmed salmon, caused by periods of over-supply and under--similar to price cycles for cattle or pigs. Because of the long time-period required to grow farmed salmon, farmers base their production on prices they expect to receive two or more years in the future.

The salmon farming industry is consolidating into very large and economically powerful multinational companies, often with production facilities in several different countries. These companies are becoming increasingly efficient in salmon farming, processing, transportation and marketing.

As prices of fresh salmon decline, salmon farmers are increasingly producing other products which compete with wild salmon. These include canned salmon and salmon roe. This new competition will affect Alaska's markets for these products.

Competitive Advantages and Disadvantages of Alaska Salmon

In thinking about strategies for competing with farmed salmon, it's important to think clearly and realistically about Alaska salmon's competitive advantages and disadvantages with respect to farmed salmon.

We need to recognize that there are several areas in which Alaska wild salmon has significant inherent competitive disadvantages compared with farmed salmon. These include production volume, production timing, and product consistency. Regardless of how we manage our fisheries, salmon farmers will be much better able to produce guaranteed volumes of product according to guaranteed specifications over the entire year. This is a huge marketing advantage for salmon farmers, especially in dealing with the large retailers and food service operators which increasingly dominate food sales. No matter how much better wild salmon tastes, we may not be able to overcome these competitive disadvantages in many parts of the salmon market.

Competitive Advantages and Disadvantages of Wild Salmon Compared with Farmed Salmon

		Alaska Wild Salmon	Farmed Salmon
Inherent Disadvantages	Production volume	Production volume is inconsistent from year to year and difficult to predict. This adds to costs of production and makes marketing more difficult.	Farmers can accurately forecast production and guarantee supply commitments.
	Production timing	Most wild harvests must occur during a short summer run.	Farmed production can occur over many months or year-round.
	Product consistency	There is wide variation in the size and quality of individual wild fish.	Farmed fish can be produced of consistent sizes and quality.
Potential Advantages	Consumer taste perceptions	Some consumers specifically prefer the taste and appearance of wild salmon.	Many consumers are unfamiliar with wild salmon; farmers can affect taste and appearance characteristics.
	Other consumer perceptions	Wild salmon may be perceived as more "natural" and more "healthy"--but may be perceived as "endangered."	Farmed salmon are not "endangered", but consumers may regard them as less "natural" (i.e. perceive negative environmental impacts of farming).
	Fish production costs	Only costs are fish harvesting, fisheries management, and (in some areas) hatchery operations.	Farmers incur all costs of raising fish.

There are also several areas in which wild salmon has *potential* competitive advantages with respect to farmed salmon. One of these is its taste, appearance, and other natural characteristics. But we need to keep these potential competitive advantages in perspective.

First, not all consumers think wild salmon is better than farmed salmon. People tend to like what they are used to. Unlike salmon fishermen, most salmon consumers are not used to wild salmon. Many consumers don't know anything about differences between wild and farmed salmon. It may require a significant marketing effort to get them to know or care about these differences.

Second, even consumers who know about and prefer wild salmon to farmed salmon won't necessarily buy wild salmon unless they can get it at a competitive price. I prefer French wines over California wines, and I prefer organic tomatoes over supermarket mega-agro-corporate-industrial tomatoes. But that doesn't mean that I necessarily buy the French wines or the organic tomatoes. I'll only buy them if I have enough money, and prefer them enough, to make up for the difference in price.

Third, consumers won't prefer wild salmon to farmed salmon unless it is handled well. Wild salmon leave the water as a better product than farmed salmon, but whether it is a better product when it reaches the consumer depends on how it is handled at every step from when it leaves the water till it reaches the consumer.

The natural characteristics of wild salmon provide a growing market opportunity for wild salmon in higher-end food-service and retail markets catering to consumers who know and care about taste and health and wildness, and who are able and willing to pay for it. There is no question that some Alaska processors and fishermen—those who are good at producing products of consistent high quality and good at marketing them—can take advantage of this opportunity to earn significantly higher prices for their salmon.

But selling to higher-end markets isn't easy. Consistent high quality and marketing costs money. And higher-end markets are limited in scale. The more salmon we try to sell to higher-end niche markets, the lower the price premium these markets will pay. As an example, keep in mind that even Copper River salmon, which is famous for good quality and good marketing, commands a much lower price in years when catches are strong, and every year prices fall off quickly once production from other Alaska fisheries enters the markets and begins to compete with Copper River salmon.

I believe the biggest potential competitive advantage of wild salmon is in costs of production. Salmon farmers face significant costs at every stage of raising fish. For wild salmon, the only costs are catching the fish and managing the fisheries, and (in some areas) operating hatcheries. Put simply, it ought to be possible to produce wild salmon more cheaply than farmed salmon. Wild salmon ought to be the low-cost competitor in the world salmon market.

But in the Alaska salmon industry, our actual costs of catching the fish are clearly substantially higher than our potential costs. For social and political reasons—basically to spread the benefits of the salmon industry among Alaskans—we manage our salmon fisheries in ways that substantially increase costs over what would be necessary to catch the fish. In effect, we give away our most important competitive advantage.

What Will Happen If We Don't Do Anything?

The consequences of not doing anything—trying to keep on doing business as usual in the Alaska salmon industry—are becoming increasingly clear. If we don't make changes, here is what is likely to happen in many Alaska salmon fisheries:

- Prices may rise over this year's very low levels, but will continue to trend downwards over time.

- Harvests in some areas will fall due to natural factors (as has always happened in the salmon industry), but prices won't rise to compensate for the fall in harvests.

- Fewer processors will operate. We have already seen a substantial reduction in the number of processors operating in Bristol Bay, Cook Inlet, and other areas. We will continue to see consolidation in the processing industry. Some processors will go bankrupt. Others will sell out facilities (or entire companies) to those processors remaining in the business.

- Processors that do operate will increasingly limit what they buy to volumes for which they are confident they have markets. One of the ways they will do this is by reducing the fleets that they buy from.

- As fewer processors operate and as they limit what they buy, more and more fishermen will lose markets.

- It will become increasingly difficult to find crew. Permit holders will have to work with fewer crew or less experienced crew, or pay higher crew shares.

- More and more permits will not be fished.

- Permit values will fall. Permits have value only because of the potential to earn profits in a fishery. If a fishery is profitable, potential buyers are typically willing to pay several times the annual expected profits for the right to participate in a fishery. But if a fishery isn't profitable, buyers won't be willing to pay much at all to get into the fishery, and fishermen selling permits will be willing to sell out cheap. Over the past few years, many fishermen have probably already lost more money from the decline in the value of their permits than from the decline in the value of their actual catches.

- Boat values will fall. A boat has value only because of the potential to earn money fishing with it. If a fishery isn't profitable, boats designed for that fishery will have less value.

- As prices fall, harvests fall in some areas, fishermen lose markets, and permit and boat values fall, more and more fishermen will go bankrupt.

- As fishermen go bankrupt and permit and boat values fall, more and more fishermen will default on commercial fishing loans.

- As harvest values fall, the State of Alaska as well as local governments will lose tax revenues.

- As harvest values fall, ASMI funding from the salmon marketing tax will decline.

- As harvest values fall, hatchery funding from aquaculture assessments will decline, and hatcheries will need to increase cost-recovery harvests to fund their operations.

- As fishermen, processors, hatcheries and local governments earn and spend less money, fishing communities will experience "multiplier" effects as the amount of money circulating in the communities goes down.

- The State of Alaska will not step in with large disaster payments or buyouts to relieve the economic pain in the commercial salmon industry. The State will face increasing money problems of its own as oil revenues decline, and is looking for ways to cut spending. The political support isn't there for large spending increases to help the salmon industry.

- The federal government may provide some funding for additional marketing, disaster relief, and permit or boat buyouts. However, the potential to get this funding won't continue indefinitely. All of Alaska's powerful congressional delegation will probably retire over the next decade.

- As the economic situation of the commercial salmon industry worsens, sport groups will be increasingly successful in reducing allocations to the commercial fishery.

Not everyone in the salmon industry faces this dismal scenario. Even if we don't make any changes, some processors and fishermen will do reasonably well, for several reasons.

First, not everyone in the salmon industry is doing badly. In some parts of the salmon fishery costs are low enough compared to prices that fishing and processing is profitable and can remain so even without significant changes.

Second, as I mentioned earlier, there will be growing (but limited) opportunities for some fishermen and processors to take advantage of higher end niche markets.

Third, as processors and fishermen leave fisheries where they can't make money, there will be more fish for those who remain, allowing their operations to become more efficient and profitable. This is the standard way in which competition forces adjustment in an inefficient, overcapitalized industry: some of the players go bankrupt or withdraw from the industry, leaving a smaller and more efficient industry.

So why not just "let the market take care of it" and let market forces bring about a more competitive Alaska salmon industry? One reason is that letting the market take care of it is a painful process for those being forced out of the salmon industry, many of whom are seeing not only their livelihoods and way of life disappear but are also seeing the value of their permit and boat assets evaporate—often the bulk of their life savings.

But the main reason for not letting the market take care of it is that market-driven adjustments can't and won't allow the Alaska salmon industry to achieve it's full economic potential--or in some areas to even survive at all. Market forces can't bring about consolidation to make the industry as efficient and profitable as possible: as long as they can make money, fishermen will fish their permits—regardless of whether their boats are needed to catch the fish. Market forces can't end the race for fish which adds costs and lowers quality. Market forces can't bring about changes in gear which could lower costs and improve quality.

What Can We Do?

I think there is a lot we can and should do. The Alaska salmon industry can and should and will have a profitable future—if we are willing to make significant changes.

The starting point in thinking about what we should do is to remember that we face many different challenges, and that the nature of the challenges varies by fishery. This means that what we can do to address these challenges also varies by fishery. Where the problem is lack of fish, strategies to raise prices won't solve the problem. Where the problem is low prices, more fish won't solve the problem.

This is part of our problem in reaching consensus about what to do. Ideas that make sense for one fishery don't necessarily make sense for other fisheries. <u>If we only look for strategies that will help everyone, we won't get very far.</u> Keep this in mind as you read this paper—and as you read or listen to anyone else's ideas about what we should do.

Another starting point is to get smarter. We have a lot to learn about what challenges we face and what we can do about them. We need to learn about our salmon resources. What is likely to happen to our salmon runs in the future? We need to learn about our markets. How and why is demand for our salmon changing? What kinds of products do our markets want? How do they perceive Alaska salmon? What marketing strategies are effective? We need to learn about our competition. What is likely to happen to farmed salmon supply, farmed salmon costs, and farmed salmon prices?

We need to realize that these are complicated questions with complicated answers, and stop making simplistic assumptions. There are smart people around who know a lot about the answers to these questions. We should listen to them and learn from them. We need to look beyond Alaska. Anyone with a serious interest in the future of the Alaska salmon industry ought to visit Japan, to visit a salmon farming region, and to talk with distributors, retailers and other people who buy and sell Alaska salmon and farmed salmon. It can really open your eyes.

Those of us who aren't processors need to learn more about the reality of the salmon processing business. Ideas about products or marketing or quality or pricing which look good on paper to people outside the processing business don't always look as good when it's your own money. Many people have learned the hard way that processing and marketing salmon isn't as easy or profitable as they thought.

Getting More Money For Our Fish

One basic approach by which we can make the Alaska salmon industry more profitable is to get more money for our fish.

For many years, we have talked about more and better marketing of Alaska salmon. The Alaska Seafood Marketing Institute (ASMI) has worked hard to market Alaska salmon both in the United States and in other countries. But these efforts have clearly not stopped the decline in Alaska salmon prices.

This is not intended to criticize ASMI in any way. ASMI faces an enormous challenge in trying to market numerous Alaska salmon species and products from many different regions, with limited and variable funding, and without any control over the products they have to market or their quality.

We should look for ways to increase funding for ASMI and other marketing efforts. We need to recognize that our competitors—in particular the Norwegians—are spending huge sums of money for marketing, and that part of our success will depend on how we respond.

Some people argue that we need to be more aggressive in our marketing, and to attack farmed salmon as unnatural, unhealthy, or bad for the environment. I'm skeptical about these arguments. I think they might confuse consumers, and that we might be vulnerable ourselves to consumer misperceptions about "endangered" wild salmon. I suspect that we might do better by joining with salmon farmers in generic campaigns to get people to eat more salmon—and that wild salmon might benefit as much or more from these campaigns as farmed salmon.

But rather than advocate for or against more aggressive marketing, I would advocate that we carefully research which strategies are most likely to be effective. We shouldn't be thinking about what marketing strategies would convince <u>us</u> to buy and eat Alaska salmon. The real issue is what marketing strategies will work for the people to whom we are trying to sell Alaska salmon: distributors, retailers and consumers. And finding that out will take real market research.

It's no secret in the salmon world that not all Alaska salmon is the same quality, and some of our salmon is not the high quality product we like to claim it is. Lower quality product harms the reputation of Alaska salmon in general, and works against our generic marketing efforts.

Quality standards for fish are rising, in part because the farmed salmon we compete against is very carefully handled. To compete effectively we need to raise the quality of our salmon. It's not obvious how to do so if we keep on fishing, delivering and processing fish in the same way. One thing that experience has shown is that simply telling fishermen, tenders and processors that they ought to handle their fish better isn't going to solve the problem.

We need a way to deal with the fact that there will continue to be Alaska salmon of varying quality. I think there should probably be clear grading standards, developed and enforced by industry. This way, people who buy Alaska salmon will know what they are getting.

A possible way of getting more money for our canned salmon would be to allow processors to form a marketing cooperative to sell canned salmon. At present, especially in big pack years, wholesale prices for canned salmon tend to be set by the weakest processor most in need of cash. If processors marketed canned salmon collectively, they would have more bargaining power in dealing with buyers. A marketing coop would raise a lot of issues. It would need an exemption from anti-trust laws. But it's an example of the kind of approach we need to be thinking and talking about.

Some people have suggested that we seek trade restrictions on Chilean or other farmed salmon. I'm skeptical about this. Getting trade restrictions implemented would be a difficult and expensive effort. Maine salmon farmers have already tried it and they succeeded in getting only minimal tariffs imposed on Chilean salmon—which didn't keep prices from falling drastically this past summer. It isn't obvious that there is any legal justification for trade restrictions or that we could get political support for doing so.

Trade restrictions on Chilean salmon alone would not substantially reduce competition from farmed salmon imports in the U.S. market. Simply restricting Chilean imports would lead to increases in U.S. imports from other farmed salmon producers such as Canada—just as restrictions on Norwegian salmon didn't drive away farmed salmon competition. And even if trade restrictions were implemented and they lowered U.S. imports of farmed salmon, they wouldn't help the Alaska salmon industry in important export markets such as Japan and Europe.

It makes sense to do whatever we can to get more money for our fish. We need more marketing. We need better quality. Maybe marketing coops could help raise canned salmon prices. But we also need to understand that for most of our salmon fisheries, these strategies won't be enough by themselves. They will cost money. They won't raise prices quickly or dramatically. And raising prices won't solve the problems that we face (or may face in the future) that aren't due to low prices—such as low salmon runs.

Reducing the Number of Permits Fished

The other basic approach by which we can make the Alaska salmon industry more profitable is to lower our costs. There is beginning to be a lot of discussion about how we could do this.

Much of the discussion has focused on changes within the current limited entry system to reduce the number of permits fished. To the extent that we are using more gear than is needed to harvest the fish—as is clearly the case in many fisheries—this could reduce costs and make fisheries more profitable for the remaining fishermen. One way of doing this is through buyouts—paying some fishermen to give up their permits and stop fishing.

There are two important differences between a buyout and "letting the market take care of it"—which can also reduce the number of boats fishing. With a buyout, the fishermen who stop fishing would get some compensation. And with a buyout, the fishery would continue to operate with fewer boats and lower costs, even if prices rose again—allowing greater opportunities for future profit.

There are many issues involved in buyouts. One is who pays, and how much? The extent to which fishermen would benefit from a buyout depends on who pays for the buyout and how much gets paid to fishermen who get bought out.

There are Alaska laws about how buyouts may be done in a limited entry salmon fishery. The existing laws require a study to determine the "optimum" number of permits in a fishery—and they also raise constitutional issues. The Commercial Fisheries Entry Commission (CFEC) discussed many of these issues in a 1998 report entitled "Outline of Options for Fleet Consolidation in Alaska's Salmon Fisheries." CFEC has also written two reports describing experience with buyouts in British Columbia and Washington State Commercial Salmon Fisheries.[1]

I am skeptical of buyouts. The basic reason for doing a buyout would be that we don't have the right number of permits in a fishery, and that a smaller number would be better. But what happens if run conditions change again, or markets change again? We may again find ourselves with too many (or too few) permits.

This illustrates a basic problem with our current limited entry system in which there are a fixed number of permits for each fishery. Run conditions and market conditions change every year. Regardless of whether we buy out some permits, there will always be years in which we have too many or too few permits.

Rather than permanent buyouts I think it would make more sense to have a system of "temporary fractional entry permits." Under this approach (which is discussed in the 1998 CFEC report), fishermen would be allowed to lease fractions of a limited entry permit. Then, if managers expected a low-run year, the Board could require that a fisherman hold 1.5, or 2.0, or some other number of permits in order to fish during that

[1] These reports are available (in PDF format) on the CFEC website at http://www.cfec.state.ak.us/.

year. Permit holders would have the choice of whether to lease permit fractions (if necessary) from other permit holders in order to participate in the fishery, or instead to lease their own permit fractions to someone else.

Another advantage of this approach is that we could do it quickly. We could do it before the 2002 season. It wouldn't involve any permanent change in the number of permits, so if didn't work, we could go back to requiring 1.0 permits to fish.

This approach could provide a short-term fix to an immediate problem we face in fisheries such as Bristol Bay, where there are far too many permit holders for the fishery to be profitable given the projected 2002 run and dismal market conditions for sockeye salmon.

But it's not the best long-run solution. As long-run solutions, I'm skeptical of *any* approaches based on the current limited entry system--because they wouldn't solve the basic problem in the Alaska salmon industry.

The Basic Problem

The basic problem we face in the Alaska salmon industry is that our management system is not designed to create a competitive and cost-efficient industry. Instead it is designed to achieve social and political goals of spreading the wealth of the salmon fishery—of maximizing jobs and incomes for Alaskans. Almost all of the regulations in the Alaska commercial salmon fishery—the ban on fish traps, restrictions on gear types, boat size limits, the limited entry system, restrictions on participation in multiple fisheries, and many others--are designed to achieve social and political purposes and are not essential for protecting and sustaining our salmon resources.

For a period of time, this worked well. The Alaska salmon industry prospered. The wealth of the salmon industry was spread among thousands of different individuals. Individuals who worked hard could earn a good living and enjoy a good lifestyle. Salmon fishermen could make good money doing what they liked to do.

But it isn't working well any more. The world has changed, and much of the wealth has gone out of the salmon industry. If an industry isn't profitable, there isn't any wealth to spread. Now the very people the management system was designed to help—rural Alaska fishermen—are hurting the most. They can't make money fishing under the current system, and much of the value of their permit and boat assets has disappeared.

The reality is that we can't achieve social and political goals from the Alaska salmon industry unless the industry is economically viable. I believe that we have to refocus our management on creating conditions for a dynamic, competitive, efficient and profitable industry.

We have lived with our current management system for so long—and the social and political reasons for why we do things as we do--that it's difficult to look at it objectively. But here is what I see when I look at the management system for Alaska salmon:

- The government—legislators, the Board of Fish, and the Alaska Department of Fish and Game--micro-manages the Alaska salmon industry. The government—not private individuals—decides exactly how salmon can be caught. The government—not market forces—decides exactly how many people participate in the industry.

- The system does not allow for continuous change. Decades ago, the government decided that salmon could only be caught by a few specific gear types and established how many boats would fish each type of gear in each area. We are locked into harvesting Alaska salmon almost exactly the same way we did decades ago. We have hardly changed at all, while the rest of the world's salmon industry—and indeed the entire global economy—has been engaged in continuous change in an effort to lower costs, improve quality, and better meet the needs of changing markets. The government is extremely slow to make any changes, even when economic conditions scream for change.

- The current management system forces fishermen to race each other for fish. This creates conditions that are idiotic from any objective point of view about how to run an industry—such as the Bristol Bay line fisheries.

- The current management system provides no way for individuals who are creative to try new ideas for how to catch fish. The entire process by which innovation and improvement occurs in the rest of our economy—constant experimentation by individuals and companies trying to find better and more profitable ways to do things—can't occur in the Alaska salmon industry.

- The system isn't working any longer. Large parts of the industry simply aren't profitable.

- The system hurts the industry not only economically but also politically. Much of the Alaska commercial salmon industry simply looks stupid and irrational to other Alaskans and other Americans. They no longer perceive the salmon industry as valuable and important. We seem to be in a perpetual crisis. We keep having "economic disasters" and we seem to be always asking for help.

For the Alaska salmon industry to not only survive but to prosper—to become a dynamic and profitable industry which can compete successfully in the face of changing resource conditions and changing world markets--I believe that we need to make fundamental changes to the Alaska salmon management system. We need to create a system that:

- Allows for continuous change and adaptation to changing natural and economic conditions

- Allows for continuous innovation and adaptation of new technologies

- Creates internal incentives for producing fish at the lowest possible cost, and to keep searching for ways to reduce costs

- Creates internal incentives for producing fish of the highest possible quality, and to keep searching for ways to improve quality.

- Creates internal incentives for investment in processing facilities, product development and marketing

An Alternative: "Rights-Based" Management

We can do this by establishing "rights-based" management of for Alaska salmon. The three basic principles of rights-based management would be the following:

1. Groups or individuals (rights-holders) would have rights to harvest a designated allocation of the salmon catch for an area and/or period of time.

2. Management regulations would focus only on (a) achieving escapement goals; and (b) achieving rights-holder allocations.

3. Rights-holders could catch their allocations in any way that they chose to do so.

Examples of potential "rights-holders" are:

- Coops of existing permit-holders—who could decide as a group how they wish to catch their allocations. An analogy would be the harvester coops established by the American Fisheries Act.

- Individuals—who could fish as they choose. An analogy would be halibut and sablefish individual fishing quotas. (Because we don't know actual run sizes in advance, the total and individual quotas would have to be set low to begin with, and adjusted upwards in-season as the run progresses and escapement goals are met.)

- Communities—who could decide how their salmon allocations should be caught. An analogy would be the Community Development Quota groups.

The basic logic for a rights-based management system is to continue to protect the resource by restricting how many fish are caught—but to do so in a way that allows fishermen, rather than the government, to decide how to catch the fish. The logic is to let fishermen use their imagination and ingenuity to figure out ways to cut costs, raise quality, and innovate and change in response to changing resource and market conditions. That's the basic logic of a market-driven economy. That's the logic that has driven most of the rest of our American economy—and made it the strongest economy in the world.

If fishermen have allocations and know how many fish they can catch, they won't have to race each other. That means that we won't need rules any more about how they can catch fish—rules which are necessary under the present system to make the race for fish fair for everyone.

If fishermen don't have to race each other for fish and can catch fish any way they wish to, they can continuously change and adapt to changing run sizes and economic conditions. They can innovate to take advantage of new technologies. They can keep searching for ways to catch fish at lower cost. They can keep searching for ways to improve quality. They will have incentives to invest in processing facilities, product development and marketing to take advantage of how they are catching and handling their fish.

With rights-based management, rights-holders could continue to fish with the same boats and gear, if they wished. Or they could fish fewer boats using the same gear. Or they could vary the amount of boats and gear they were fishing—using less gear if the run was weak—but (unlike under the current system) without having to worry that someone else would catch the fish. They could use different kinds of boats and gear—and invent new kinds of fishing gear. They could use fish traps.

Fish traps have been a taboo topic for a long time in Alaska. But what's wrong with fish traps? In some fisheries, they can be extremely cost-effective. They can catch fish live, allowing for much higher quality and spreading out of processing over time. They can allow exact achievement of escapement goals. What we should be concerned about is not *how* fishermen catch fish, but how many they catch.

Am I advocating fish traps as the solution for the Alaska salmon industry? No, not at all. Maybe fish traps would be a good idea for some Alaska salmon fisheries—or maybe they wouldn't. What I am advocating is letting fishermen fish in ways that can reduce costs and increase quality—including fish traps, if they wish.

The Devil is in the Details

Experience—from Alaska and elsewhere—shows that it is important to be very careful in establishing rights-based management systems. Once a rights-based system is in place, it's hard to go back—to take away rights. So it's important to think carefully about the details of any new system. Four of the most important kinds of issues in creating rights-based management for Alaska salmon are (a) how to make rights-based management consistent with the Alaska constitution; (b) how to simultaneously manage salmon fisheries for escapement and allocation; (c) what kind of rights should be created and who should receive them; and (d) what provisions should be included to address potential adverse "side-effects" of rights-based management.

Constitutional Issues

There are significant constitutional issues associated with rights-based management of Alaska salmon. Article VIII, Section 3 of the Alaska Constitution states that:

> "Wherever occurring in their natural state, fish, wildlife, and waters are reserved to the people for common use."

Article VIII, Section 15 states that:

> "No exclusive right or special privilege of fishery shall be created or authorized in the natural waters of the State. This section does not restrict the power of the State to limit entry into any fishery for purposes of resource conservation, to prevent economic distress among fishermen and those dependent upon them for a livelihood and to promote the efficient development of aquaculture in the State."

Some people interpret these two provisions as meaning that provisions for rights-based fisheries—or potentially *any* management changes that might reduce participation in Alaska salmon fisheries below a level needed to "prevent distress"—would be unconstitutional.[2] But even if that is so, that doesn't mean that rights-based management is impossible.

We have to recognize that meaningful changes to create a profitable salmon industry may require amending the Alaska constitution. That takes hard work—but it isn't at all impossible. We've done it before when we faced a crisis in our salmon fisheries. Alaskans changed the constitution in order to establish the salmon limited entry system—by adding the second sentence of Article VIII, Section 15.

If constitutional restrictions make it impossible to conduct a rational, cost-effective salmon fishery, then it may be time to ask whether reserving all of our salmon fisheries for "common use" without any "exclusive rights" still makes sense for Alaska. We don't reserve our other resources for "common use" without any "exclusive rights." We lease oil development rights to oil companies. We sell timber to timber companies. We allow miners to establish rights to mineral deposits. But that doesn't mean we don't all benefit from these resources. We do benefit, partly from the income the State receives from leasing resources, and partly because of the economic development that results from allowing development of these resources in a profitable way. Only in our fisheries do we look upon the concept of "private property" as somehow wrong—even though we celebrate it as the basis of the rest of our economic system.

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[2] The Commercial Fisheries Entry Commission (CFEC) discussed these issues in its 1998 report "Outline of Options for Fleet Consolidation in Alaska's Salmon Fisheries," available (in PDF format) on the CFEC website at http://www.cfec.state.ak.us/.

Management Issues

Rights-based management would create a different set of challenges for Alaska's salmon managers. How could we achieve escapement goals and allocate quota shares to specific groups or individuals in a salmon fishery, given all the complexities of uncertain run sizes and run timing?

The answer would certainly vary by fishery. In some fisheries it might be relatively easy; in others it might be very difficult. In general, management would be based on allowing rights-holders to catch specified numbers of fish during specified periods of time—as opposed to the current system of allowing permit holders to catch as many fish as they can during openings for their gear groups. The challenge for managers would be in determining appropriate quotas for each rights-holder during each time period to achieve escapement and allocation goals—and to enforce those quotas. In the interest of conservation, it might be necessary to set low initial quotas for any given time period—to avoid over-harvest—and then to adjust these quotas upward if justified by run strength. Alternatively, it might be possible to have a system of "cumulative catch quotas"—maximum allowable total harvest as of a given date—which could be adjusted upwards depending upon run strength.

Rights-based management wouldn't necessarily have to be more difficult for salmon managers. In some fisheries a rights-based system might improve management, by limiting catches to specific numbers, in particular if fishermen were allowed to use gear which caught fish live, such as traps.

In designing a rights-based system, it would be important for fishermen to work together with managers in discussing proposed harvesting methods, and how catches would be reported for run monitoring and enforcement purposes. The general principle should be that fishermen would be allowed to catch their allocations in any way they choose, if but only if harvests could be monitored and enforced to allow managers to achieve escapement goals at least as well as they can under the present system.

Allocation Issues

A second critical set of issues relates to allocation—who would get the rights? This will be critical in determining who stands to gain or lose from changing the management system. Experience in attempts to establish rights-based management in other fisheries, such as halibut and sablefish, pollock and crab suggests that allocation of salmon is likely to be extremely controversial.

In some respects, however, allocation of salmon harvesting rights might not be as difficult as in some other fisheries. That is because access to Alaska's commercial salmon fisheries has already been restricted to limited entry permit holders. In effect, we already have a rights-based system for salmon. But it doesn't work as well as it could if

it gave fishermen a right to the fish instead of a right to compete with each other for the fish.

If we allocate rights to current permit holders, we wouldn't be shutting anyone out who isn't already shut out. Nevertheless, allocation would still be highly controversial. Some fishermen would likely argue for basing allocation on catch histories, while others would argue for equal shares for all permit holders.

Although allocating rights to current permit holders seems both fairest and most politically feasible, we don't necessarily have to do it that way, and we don't have to allocate permanent rights. Perhaps (after an adjustment period) we could allocate some of the rights to communities, as occurs under the CDQ program. Or we could auction off some of the rights, as we do for other natural resources such as timber and oil.

"Side-Effect" Issues

The principle of rights-based management is that by ending the race for fish and reducing government-micromanagement of salmon fishing, we can make it possible for fishermen to cut costs and raise quality—both of which are necessary if the Alaska salmon industry is to survive and prosper. However, rights-based management may have a variety of side-effects on salmon processors, on communities, and on who will participate in and benefit from Alaska's salmon fisheries in the future. In introducing rights-based management–or any other management changes--it is important to think carefully about whether provisions are needed to avoid potential adverse side-effects and to achieve social goals (without adding unnecessary economic costs).

Rights-based management could alter the relationships between salmon fishermen and processors, and would likely increase the relative bargaining power of fishermen. While that may be good from the point of view of fishermen, it isn't necessarily good for processors or for local communities. For example, a fishermen's coop controlling a significant share of a particular fishery might choose to do business with only one processor, possibly from outside the community. This in turn might affect the ability of other, local processors to survive and to provide markets for non-salmon fisheries. To address these effects, if we wished, we could place restrictions on where or to whom rights-holders could sell salmon—as was done with Bering Sea pollock fisheries under the American Fisheries Act and has been suggested (and hotly debated) for crab fisheries.

Rights-based management would likely reduce total employment in Alaska salmon fisheries. If we wished, we could create provisions in rights-based management designed to foster local employment. For example, if limited entry permit holders became share-holders in a coop operating a fish trap, we could require that share-holders work on the trap or associated tendering and processing operations during the season.

My point is not to advocate these kind of restrictions. In fact, I am inclined to be skeptical of them. My point is to emphasize that we need to think about potential side-effects of rights-based management and how we might address these concerns.

It's Time to Start Thinking About Change

As can be seen from even a brief review of these "details," establishing rights-based management would take a lot of work and would take time. So would any other fundamental changes that would make a real difference.

That doesn't mean we can't or shouldn't make fundamental changes. It means we need to get started thinking about them. We have a lot to think about. No new system will be perfect or will please everyone. What's important is whether it will be better than what will happen if we don't change.

The sooner we start thinking about fundamental changes, the sooner we'll be in a position to make changes—and the less likely that we will make mistakes by acting in a hurry after things get even worse.

Who has the authority to make changes to Alaska salmon management? Collectively, the Board of Fish, the legislature and the governor have full responsibility and authority to manage the salmon fisheries. They make the rules, and they can change the rules. If we need to change the Alaska constitution, they can start that process.

It's time for every Board of Fisheries member, every legislator, and the governor to start exercising leadership to address the challenges facing the Alaska salmon industry. Leadership means learning about the issues, listening to Alaskans about the issues, helping devise solutions and finding compromises, and taking action.

Not acting has consequences. For those who don't support the rights-based management concepts for salmon fisheries that I've suggested in this paper--or other proposals for making Alaska salmon fisheries more viable--the question should be what are they proposing as an alternative? And what are they doing to make it happen?

Alaska salmon fisheries can be profitable if we're willing to make real changes, including changing management to allow fishermen to cut unnecessary costs and improve quality. The Alaska salmon industry can survive--and prosper--if we're willing to let it succeed.